

WHAT IS CLAIMED IS

1 1. Method of analyzing biological signals, comprising
2 obtaining [a magnetic recording media having] an analog biological
3 signal recorded thereon, using digital processing software to
4 digitize said biological signal, displaying said processed biological
5 signal in analog form on a display, and visually analyzing said
6 biological signal on said display.

1 2. Method of claim 1, wherein said biological signal is an
2 electrocardiogram.

1 3. Method of claim 1, further including performing
2 independent channel enhancement of the dynamic range of said
3 analog biological signal prior to said digitizing.

1 4. Method of claim 1, wherein displaying includes displaying
2 said biological signal in time compressed form.

1 5. Method of claim 1, wherein visually analyzing includes
2 attempting to match patterns in said biological signal with a given
3 library of patterns.

1 6. Method of claim 1, wherein electronic independent
2 optimization of the dynamic range in each channel is done prior to
3 said digitizing.

1 7. Method of claim 1, wherein said digitizing is performed by
2 sampling said biological signal at at least approximately 44,100Hz

3 per second per channel.

1 8. Method of claim 7, wherein said digitizing is performed
2 using quantization of at least 16-bits per sample per channel.

1 9. Method of claim 1, wherein said digital processing
2 software is digital audio processing software.

1 10. Method of claim 1, further including the step of using time
2 intervals in the biological signal to asses internal functional
3 harmony of the biological signal.

1 11. Method of claim 1, wherein digitizing includes using
2 computer sound cards to digitize the biological signal.

1 12. Method of claim 1, wherein visually analyzing said
2 displayed signal includes looking for abnormalities from the group
3 consisting of: myocardial ischemia, arrhythmia, repolarization,
4 depolarization heterogeneity, and pacemaker malfunction.

1 13. Method of claim 1, wherein said displaying includes
2 magnifying said displayed biological signal in a Y axis to enable at
3 least microsecond levels of said biological signal to be viewed.

1 14. Method of claim 1, wherein said displaying includes
2 magnifying said displayed biological signal in an X axis to enable
3 at least microvolt levels of said biological signal to be viewed.

1 15. Method of claim 1, further including using said method for
2 mass screening of the human population for abnormalities.

1 16. Method of claim 1, wherein said magnetic recording
2 media is a cassette tape and said digitization includes using a slow
3 playback speed for said cassette tape.

1 17. Method of claim 16, wherein said slow playback speed is
2 selected to be approximately 40mm per second.

1 18. Method of claim 8, wherein said magnetic recording
2 media is a cassette tape and said digitization includes using a slow
3 playback speed for said cassette tape.

1 19. Method of claim 1, wherein said biological signal is an
2 electroencephalogram.

1 20. Method of claim 1, wherein said biological signal is a
2 myogram.

1 21. Method of claim 1, wherein said biological signal is a
2 phonocardiogram.